Public Notice

Applicant: U.S. Army Corps of Engineers

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U.S. Army Corps of Engineers
Buffalo District **CELRB-TD-R** **In Reply Refer To:**
RE: 2004-00250(0) **Section:** NY and OH

BUFFALO DISTRICT MITIGATION AND MONITORING GUIDELINES REQUEST FOR COMMENTS

The U.S. Army Engineer District, Buffalo, New York, is proposing the establishment of the Buffalo District Mitigation and Monitoring Guidelines. The purpose of the guidelines is to provide applicants, permitees, and other members of the regulated public guidance for wetland and stream mitigation proposals submitted to the Buffalo District. The mitigation proposals are typically submitted to satisfy the compensatory mitigation requirements associated with Department of the Army permits. The establishment of these guidelines is predicted to improve efficiency of the permit evaluation process and success of compensatory mitigation projects performed in the Buffalo District.

The purpose of this Public Notice is to solicit comments from the regulated public, interested parties, Indian Tribes, and government resource agencies regarding the proposed Buffalo District Mitigation and Monitoring Guidelines. A draft of the mitigation guidance document can be viewed at http://www.lrb.usace.army.mil/orgs/reg/permits/PN_200400250_0.pdf A direct link for providing your comments is available on this website for your convenience. If you do not have access to the internet and/or desire a hard copy of the Buffalo District Mitigation and Monitoring Guidelines, contact Sue Polito at 716-879-4299.

Questions pertaining to the Buffalo District Mitigation and Monitoring Guidelines should be directed to Theresa Hudson, who can be contacted by calling (716) 879-4368, or by e-mail at: theresa.b.hudson@usace.army.mil (Link: Theresa Hudson).

Any interested party desiring to comment on the document described herein may do so by submitting their comments, in writing, so that they are received no later than 4:30 pm on the expiration date of this notice. Comments should be sent to the U. S. Army Corps of Engineers, 1776 Niagara Street, Buffalo, New York 14207, and should be marked to the attention of Theresa Hudson, or by e-mail at: theresa.b.hudson@usace.army.mil (Link: Theresa

Hudson). Any comments received will be considered by the Corps of Engineers for incorporation into the Buffalo District Mitigation and Monitoring Guidelines.

Thomas C. Switala
Chief, Regulatory Branch

Buffalo District
Mitigation and Monitoring Guidelines

U.S. Army Corps of Engineers

I. Purpose:

To improve the success and administrative processes relating to compensatory mitigation for impacts to aquatic resources, the Corps is implementing several initiatives. One of these initiatives is the development of District regional mitigation and monitoring guidelines. Under existing law the Corps requires compensatory mitigation to replace aquatic resource functions lost or adversely affected by authorized activities (Section 404 of the Clean Water Act and Section 10 of the Rivers and Harbors Act). The Buffalo District Regulatory Branch is committed to improving the success of mitigation and increasing its focus on mitigation compliance. The purpose of these guidelines is to assist applicants in the preparation of compensatory mitigation and monitoring plans, which will improve the efficiency of the permit evaluation process and improve the success of compensatory mitigation projects performed in the Buffalo District.

II. Compensatory Mitigation Overview

Under USEPA's Section 404(b)(1) Guidelines, Department of the Army permit applicants are required to demonstrate that the proposed project results in the least environmentally damaging practicable alternative. To accomplish this, applicants must first demonstrate that impacts to aquatic resources have been avoided and minimized to the maximum extent possible *before* any mitigation plan will be considered for approval (Link: 404(b)1 Guidelines).

By establishing mitigation guidelines, the Buffalo District seeks to ensure that projects requiring compensatory mitigation will adequately provide functional replacement for proposed unavoidable aquatic resource losses (Link: Corps Mitigation Guidance Letter No. 02-2). When evaluating compensatory mitigation plans, the Buffalo District will consider the operational guidelines developed by the National Research Council - Appendix B, for creating or restoring ecologically self-sustaining wetlands (Link: Compensating for Wetland Losses under the Clean Water Act, 2001). Applicants are also encouraged to review the multi-agency checklist and technical guide for preparing mitigation plans, the Model Compensatory Mitigation Plan Checklist and Supplement (Link: Checklist and Supplement). This national checklist has been expanded by the Buffalo District Corps of Engineers to account for specific regional differences that occur within the District.

When evaluating potential mitigation sites, applicants must evaluate the hydrogeomorphic setting, ecological landscape, and climate. In doing so, one can determine which attributes can be manipulated (i.e. hydrology, topography, soil, vegetation, or fauna) to restore, create, or enhance viable aquatic functions. Wetland preservation and enhancement may be proposed in combination with restoration, and creation; however, because preservation does not result in a net gain of wetland functions, preservation alone will only be used in exceptional circumstances. Applicants are encouraged to propose mitigation projects that include a variety of wetland habitats and associated upland buffers. These projects provide a greater variety of

functions when viewed in a watershed perspective.

Creation, restoration, or enhancement of ecosystems can, at best, be a risky endeavor. The responsibility for design, construction, and success rests *solely* with the applicant. Each applicant is encouraged to converse with the Regulatory project manager reviewing the proposal so as to establish what mitigation will be considered successful. The Buffalo District Regulatory staff will review the material presented and determine appropriate requirements or conditions for measuring success. The District will not endorse any particular site, design, or construction measure proposed. Each permittee is responsible for the success or failure of the mitigation. The permittee will not be released from the mitigation obligation until it is deemed successful by the Corps project manager.

During the process of deciding what mitigation may be appropriate for the anticipated losses the Corps project manager will take into account timing of the project, adequacy of the project's functional replacement, amount and type of replacement, and likelihood of success. Greater emphasis may be placed on certain ecosystem attributes, depending on their importance in the context of the watershed, when determining appropriate mitigation ratios. Those responsible for unauthorized work performed in violation of the Clean Water Act will be instructed to provide additional mitigation to compensate for the temporal aquatic resource losses and for the lost opportunity to avoid or minimize these resources losses.

The conceptual mitigation plan must be elaborate and contain measurable, specific, detailed information pertaining to each aspect of the proposed mitigation. Construction specifications should be detailed. The mitigation plan should include appropriate contingency plans to address possible failures in the mitigation. All mitigation plans should consider placement of the functions within the landscape's limitations and take into account off-site influences, such as urbanization, floods, etc.

Mitigation areas should be located in an area suitable for long-term protection. Procedures should be implemented to ensure that these sites are protected in perpetuity.

Applicants proposing to perform mitigation in degraded or highly developed landscapes should consider complications with maximizing the functional replacement of the impacted aquatic resources. Wetlands or streams in these settings, while serving important water quality functions, such as sediment or nutrient retention, may only achieve their maximal function as an impaired system that requires active management to support natural processes and native species.

V. Conclusion/Summary:

The development and implementation of the Buffalo District Mitigation and Monitoring Guidelines reinforces the Corps' commitment to provide strong protection of the Nation's aquatic resources while enhancing the efficiency of the Corps' administration of its regulatory program. The information contained in this document will aid the public in developing successful mitigation.

In addition to the Buffalo District Mitigation Overview stated above, a checklist is included that is reflective of the District's goals for achieving appropriate mitigation as a positive step toward assisting the public in protecting valuable public resources.

BUFFALO DISTRICT
COMPENSATORY MITIGATION PLAN CHECKLIST[1]

This checklist serves as a technical guide for permit applicants preparing compensatory mitigation plans to offset the impacts to aquatic resources authorized under Section 404 of the Clean Water Act and Section 10 of the Rivers and Harbors Act. The checklist provides a framework that will improve the consistency of mitigation plans, and ensure the quality of the resource to be established. This checklist is consistent with the National Research Council's Guidelines for Self-Sustaining Mitigation.

Each applicant should provide a document that contains all relevant information and comprises a complete mitigation project. This will assure that the proposal can be appropriately reviewed with regard to the proposed aquatic resource impacts, thereby, increasing the probability for the establishment of a functioning replacement wetland or stream in perpetuity. The Corps of Engineers regulatory project manager may request additional information to aid in this review. Applicants may supply any additional information that supports the evaluation of the mitigation proposal. The following information was developed to provide guidance with respect to the submittal of compensatory mitigation plans which can be evaluated efficiently in association with a Department of the Army permit application; however, the information required may vary from project to project. All of the following information, if applicable, must be provided on 8.5" x 11" paper:

- Mitigation Goals and Objectives
  - General mitigation concepts and goals (restoration, rehabilitation, re-establishment, enhancement, and preservation, including aquatic habitat improvements)
  - Describe functions lost at impact site
  - Describe functions to be gained at mitigation site
  - Describe overall watershed improvements to be gained

- Baseline Information for Impact and Proposed Mitigation Sites
  - Proposed Project Description
    a. Name, location, and detailed drawings of the proposed project(s)
    b. Names, addresses, and phone numbers of all responsible parties, including but not limited to the: land owner(s), developer(s), consultant(s), and engineer(s)
    c. Description of all functions and values of all waters of the United States, including wetlands, which will be impacted by the proposed project
  - Provide data on physical attributes of sites (soils, vegetation, hydrology, wildlife use landscape aspect)
  - Describe historic and existing land uses and resources impacted
  - Describe reference site attributes, if available
  - Describe efforts to incorporate restoration opportunities on the landscape (bioengineering, breaking existing field tiles, minimize excavation and engineering)

- Mitigation Site Selection and Justification

[1] As amended from the "Multi-Agency Compensatory Mitigation Plan Checklist"

- Describe process of selecting proposed site, include relevant mapping
  a. Location and size of proposed mitigation site (including latitude, longitude and 8(+) digit Hydrologic Unit Code)
  b. Property ownership status
  c. Delineation of all waters of the United States, including wetlands, present on the proposed mitigation site
  d. Present, past, and future uses of the proposed mitigation site and adjacent areas; consider complications of seriously degraded sites
  e. Existing and proposed topographic features (0.5' contour intervals)
  f. Document soils profiles and special soil features
  g. Document hydrology
     i. Annual precipitation for locale
     ii. Groundwater data (monitoring well data)
     iii. Location of site within the watershed
     iv. Surface water data
     v. Hydrology models, including model assumptions
     vi. Evidence for sufficient hydrology
  h. Document vegetation
     i. All plant species on site (including dominant plant species)
     ii. Evidence of wetland vegetation, which may recruit
  i. Existing functions and values of the proposed mitigation site
  j. Relevant local ordinances, zoning, etc.
  k. Relative location of project within the watershed
  1. Reference wetland or stream
- Likelihood of success, future land use, compatibility, etc.
- Evaluation of projected functions and values.

- Mitigation Work Plan
  - Location of wetland/stream features, lay-down, and other work areas
  - Construction Plan and timetable
    a. Site preparation
    b. Inclusion of topsoil, organic material, other seed sources, and bioengineering techniques used
    c. List of vegetation species seeded and planted
    d. Planting plan-techniques, species, density, soil suitability, season
    e. Temporary seeding irrigation plan
    f. Topsoil storage/treatment
    g. Erosion control techniques
    h. Reference wetland or stream specifications
    i. Wetland Design Specifications and Characteristics
    j. Area of permanent water, if any
    k. Area of seasonally saturated wetland and seasonal variations
    l. Depth of basin
    m. Basin slopes
    n. Soil information
    o. Micro features and heterogeneous topography

p. Water elevation/depths
q. Vegetation zones and species placement table
r. Stream Design Specifications and Characteristics
    i. Reference stream reach and location
    ii. Plan view drawing- banks, normal water elevation, topographic features, thalweg, sinuosity measurements
    iii. Grade drawings- gradient, grade controls, grade elevations, grade limitations
    iv. Cross-sectional information- bankfull, floodplain width, flood-prone width, entrenchment ratio, floodplain width
    v. Important design features
    vi. Watershed size (drainage area) and location
    vii. Flow rate, storm events, and other engineering information
    viii. Sediment transport
    ix. Water quality and stream use designation
    x. Fish, macroinvertebrate, benthic, etc. information
    xi. Stabilization features
    xii. Habitat features
    xiii. Pebble counts
    xiv. Vegetated areas and species placement
    xv. Riparian corridor description and topography
    xvi. Upstream, project area, and downstream land use
    xvii. Construction techniques- equipment size and type, temporary dewatering techniques, staging requirements and site access, best management practices
    xviii. Construction schedule and other necessary permits

○ Describe planned hydrology, vegetation, soils, buffers, etc.
○ Literature search
○ As-Built Parameters
a. Parameters measured
    i. Wetland or stream footprint
    ii. Surface elevations
    iii. Water depths
    iv. Flow rate at inlet
    v. Outflow rate, if any
    vi. Topsoil source
    vii. Depth of topsoil
    viii. Placement of permanent PVC monitoring posts in upland and wetland, or stream monitoring stations
    ix. Other features constructed, including buffer
b. Data presentation
    i. Field forms
    ii. Computer outputs (summary)
    iii. Photographs
    iv. Maps and drawings, including 0.5’ topographic map
    v. Text
c. Responsible parties

- Performance Standards
  - Identify success criteria
    a. Proposed target jurisdictional acreage to be created
    b. Proposed target hydrological regime/hydroperiod (expressed also in linear footage, functional assessment numeric or descriptor)
    c. Proposed target plant communities
    d. Types(s) of communities/habitats to be create
    e. Wetland Acreage to be created
    f. Wetland functions to be emphasized
    g. Buffer acreage to be created
    h. Rationale for general mitigation design and for expecting success
    i. Summary of goals
    j. Projected time schedule for construction and habitat development event
  - Compare functions lost and gained at impact and mitigation sites
  - Describe soils, vegetation and hydrology parameter changes
  - Proposed minimum acceptable functions and values
  - Final Success Criteria

- Site Protection and Maintenance
  - List parties and responsibilities
    a. Organization(s) with stated conservation directive or mission
    b. Third party agreement
    c. Adjacent land manager/management agreements
    d. Perpetual protections, such as Conservation Easements, fee simple donations, subordination waiver
    e. Allowable compatible uses and prohibited uses
  - Provide evidence of legal protective measures
    a. Conservation easement
    b. Fee simple donation
    c. Management contract with federal, state, local conservation organization
    d. Compliance agreements
  - Maintenance plan and schedule
    a. Structural repairs or maintenance
    b. Invasive/monotypic species management

- Monitoring Plan
  - Provide monitoring schedule, identify party(ies) and responsibilities
    a. Responsible party(ies)
    b. Comprehensive monitoring plan
       i. Parameters to be monitored
       ii. Monitoring schedule
           1. Data collection schedule
           2. Report submittal schedule
    c. Early response strategy to monotypic and/or invasive species
    d. Compliance agreements between cooperating parties

- Specify data to be collected, including assessment tools and methodologies

- Adaptive Management Plan
  - Identify party(ies) and responsibilities
  - Initiation/implementation of adaptive management plan
  - Remedial measures (financial assurances, management plan, etc.)
    a. Funding mechanism and assurances
    b. Corrective measures
    c. Initiating step-wise procedures for contingency measures
    d. Location for contingency mitigation

- Financial Assurances
  - Identify party(ies) responsible for assurances and schedule
  - Specify type of assurance, contents, and schedule
    a. Performance bond
    b. Letter of credit
    c. Escrow account
    d. Alternative mitigation plan and proposal
    e. Maintenance account
    f. Casualty insurance